THE SKIN

By

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The skin is the largest organ in the body. It forms 16% of the total body weight. Life is impossible without it. This fact is easily proved by the rapid death which occurs in human beings in whom extensive areas of skin is lost due to injury or burns. If an animal is peeled off its skin it rapidly dies.

The skin is made up of two germinal layers: the epidermis and the mesoderm. The outermost layer—the epidermis—is ectodermal in origin and it is of interest to note that the central nervous system is also ectodermal in origin. The innermost layers of the skin are the dermis, also known as cutis vera, that is true skin and the subcutaneous fatty layer. Therefore it appears from the above statement that when one is dealing with skin one has to think of 3 layers like the epidermis, the dermis and the subcutaneous tissues.

In addition to the above layers in the skin, the skin has appendages like the hair and the nail which are borny appendages and sweat glands and sebaceous glands which are glandular appendages.

The skin is richly supplied by blood vessels and nerves for the sake of nourishing the skin as well as enabling the skin to appreciate external sensory impressions. It is of interest to note that the sensation of itching is a sensation peculiar to the skin only and an understanding of the sensation of itching has only been appreciated in recent times.

It is therefore seen that the skin is a well-organized organ and due to this organization it is able to carry out the following functions:

1. It forms a pliable and elastic covering to the underlying structures.
2. It is a vast sensory organ for perception of pain, heat and cold and touch in addition to its capacity of indicating the sensation of itching.
3. With the help of blood vessels and the sweat glands (eccrine) it regulates the body temperature in relation to the environment.
4. It acts as a semi-permeable membrane permitting only certain substances to enter and not permitting others.
5. It has its own capacity for disinfection which it achieves:
   (a) By the continuous shedding of the superficial layers.
   (b) By the presence of fatty acids on the surface.
   (c) By the relative dryness of the skin.
   (d) By the negatively charged zone in the most superficial layer which automatically repels bacteria as these are also negatively charged.
6. It is able to synthesize Vit. D by the action of Ultra Violet Rays of the sun acting on the 7-dehydrocholesterol of the sebum.

Care of the skin of the new born:

The new born period is the period from birth to the end of first month. The child when born has a reddened skin which is thin and soft and easily bruised. The infant while in the womb is in a constant environment surrounded by the amniotic fluid and in such a situation does not require the skin to carry out the functions mentioned in the preceding paragraphs. The skin therefore has to be looked after with certain amount of care during this period.

At birth the infant's skin is covered by a whitish cheesy material called the vernix caseosa. The vernix caseosa is formed by the periderm during the fourth month of intra-uterine life. It is now generally recognised that the vernix caseosa is essential for protecting the infant's skin in the early days of its arrival into the world. Hence nowadays it is advised not to wipe away or wash away the vernix caseosa but allow it to separate by itself in about 4 to 5 days time. If any wiping is to be done it should be done with a soft cloth soaked in warm water to wipe off mainly the blood crusts. After the vernix caseosa peels off gentle cleansing of the skin with a soft cloth soaked in warm water followed by gentle pat drying with a soft dry cloth. This is all that is needed. If soap is to be used a super-fatted soap like a baby soap (Johnson's) may be used. After the bath all folds of the skin must be gently dried with a soft cloth and the body dusted with talcum powder.

Since the degenerating capacity of the infant's skin is not optimum it is now advocated to use a dusting powder containing hexa-chlorophene.

The perianal skin must be cleansed with plain water and a soft cloth.

The clothing must be light, loose and of soft material and no buttons must be used. If the child is nursed individually along with the mother the risk of picking up infection is rare unlike in institutions wherein infants are kept together.

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